From:	Joseph Vitale
To:	Geiger, William
Cc:	Nicholas Steenhaut; (George.Horvat@exeloncorp.com); Lisa E. Pfeifer (lisa.pfeifer@pepcoholdings.com); Patrick Eisenhauer - PPL Electric Utilities Corp. (PEisenhauer@pplweb.com); Rich Blackman (Richard.Blackman@pseg.com); David Rubin (rubind@coned.com)
Subject:	Metal Bank
Date:	Tuesday, February 02, 2016 4:39:18 PM
Attachments:	image001.png OverlayR3.pdf

Hi Will:

We prepared this email in response to our discussion with EPA and NOAA yesterday. During that discussion, we requested that the construction of the repair of the sheet pile wall would begin before July 1. NOAA expressed some concern that the potential turbidity generated by the repair of the sheet pile wall, and in particular the placement of the R6 stone on the Delaware River bottom, could adversely affect shad spawning which occurs during the late spring/early summer months. We understand this concern; however, EPA and NOAA should consider the following key pieces of information and mitigating measures we plan on taking to minimize turbidity during the course of the project:

1. Implementing the sheet pile wall repair is intended to prevent the potential future release of PCB contaminated sediments into the Delaware River.

2. The work will be performed following a turbidity control plan to be submitted for EPA approval that will include the following key elements:
    a. Careful placement of the first layer of R6 stone. Specifically, the clamshell bucket will be lowered below the surface of the water to within a foot or two of the bottom before releasing the stone

    b. Use of a managed turbidity curtain around the active work area

    c. Monitoring of turbidity several times daily during placement of stone

3. The project footprint is limited. R6 stone will be placed on approximately 0.45 acres of the Delaware riverbed – 92% of which was excavated in 2009 and backfilled with R3 stone and has not accumulated much sediment since then (the pink line in the attached figure indicates the extent of previous excavations and R3 placement). The remaining 8% (<0.04 acres) of the area where R6 stone will be placed is located in an area with cobble substrate due to high stream velocities in this area. This is further supported by the fact that nearby marine mattresses placed in 2009 have not accumulated substantive amounts of fines.

As expressed above, we believe that the benefits of completing the project as soon as possible outweigh the potential drawbacks of an early start.

In summary, we do not anticipate significant increases of turbidity during placement of R-6 stone because: 1) the near-shore river bottom is a scoured environment lined with medium to large stone and 2) the additional mitigation measures of carefully and methodically placing the first layer of stone and deploying the silt curtain around the active work zone should address this concern making EPA and NOAA more comfortable with our contractor executing this repair earlier during the spring months.

If you have any questions, please let us know.

Regards,

Joseph P Vitale, PE, LSP

MS Civil Eng., MBA
Principal Consultant
Office 617 946 6115
Mobile 617 721 2766
jvitale@ramboll.com

Ramboll Environ
20 Custom House Street, Suite 800
Boston, MA 02110
www.ramboll-environ.com

My email addresss has changed to jvitale@ramboll.com. Please make a note of this in your contact records. I will continue to receive email at the jvitale@environcorp.com address.